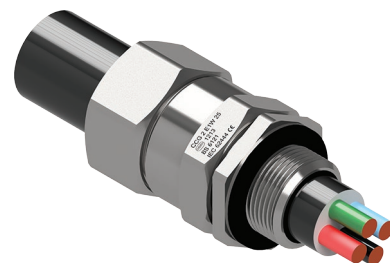


# E1W VS

## CAPTIVE COMPONENT GLAND®

for SWA, Copper Tape or Lead Sheathed Cable



### Features and Benefits

- For indoor and outdoor use.
- Two-part handling, no loose parts. Freely rotating captive cone and inspectible cone ring providing an armour clamp and earth bond without twisting the armour wires.
- Patented disconnect system that allows inspection of armour clamp and inner seal after assembly.
- Provides 360° earthing to copper tape or lead sheath.
- Factory fitted with a specially formulated elastomeric seal for Built-in Safety™, seals on the inner and outer sheath of the cable.
- Precision manufactured from high-quality brass (Marine Grade Electroless Nickel Plated™) available in aluminium or stainless steel 316/316L on request.
- Supplied with a thread-sealing gasket (parallel threads only).



### Technical Data

|                       |  |
|-----------------------|--|
| Type:                 | E1W VS   |
| Gland Material:       | Brass (Nickel Plated), BS 2874, EN 12164, Aluminium ASTM BS221, Stainless Steel 316/316L |
| Seal Material:        | Thermoset Elastomer or Silicone on request   |
| Cable Type:           | Steel Wire Armour, Copper Tape or Lead Sheathed  |
| Armour Clamping:      | Rotating Captive Cone and Inspectible Cone Ring  |
| Sealing Area:         | Inner Sheath and Outer Sheath  |
| Optional Accessories: | Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud                         |

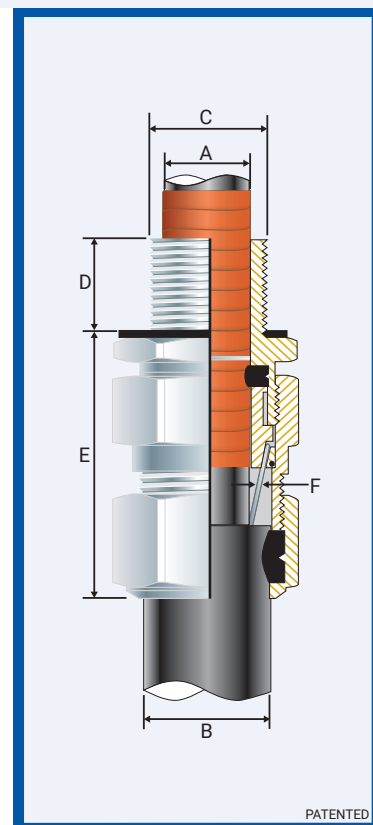
### Standards and Certifications

|                             |  |   |
|-----------------------------|--|---|
| Mechanical Properties:      | Impact Category 8<br>Anchorage Type D                                    |   |
| Electrical Properties:      | Category A (no earth tag)<br>Category B (with earth tag)                 |   |
| Continuous Operating Temp:  | -65°C to +120°C  |   |
| Conformance:                | Standard:  | Certification:  |
| Design Standards            | BS 6121:Part 1<br>EN 50262<br>IEC/BS EN 62444<br>SANS 62444<br>SANS 1213 | CML 14CA364<br>CML 14CA364<br>CML 14CA364<br>MASC 22-9012<br>MASC 18-2047, SANS 2109/4596<br>CML 15Y728, MASC 22-9015 |
| IP66/68 100m - Parallel     | IEC 60529  |   |
| IP65 - Tapered              | IEC 60529  |   |
| Marine ABS                  | IEC 60529, IEC 62444   | 25-0167207-PDA  |
| DNV                         | IEC 60529, BS 6121, IEC 62444  | TAE000000Z  |
| EMC Compatible              | EN 55011, A1, EN 55022   | SGS EMC305079/1   |
| London Underground Approval | BS EN 62444  | LU 3043   |



### Installation Standards

- AS/NZS 3000
- BS 7671
- IEC 60364-5-54
- BS 6121-5
- BS 7430
- SANS 0142



PATENTED

| Product Code | Gland Size Reference | Metric Entry Thread |         | NPT Entry Thread |         | Cable Detail |         |         |         | Max Length 'E' | Armour Dia |         | Hexagonal Detail |            | Install Torque Value Nm |
|--------------|----------------------|---------------------|---------|------------------|---------|--------------|---------|---------|---------|----------------|------------|---------|------------------|------------|-------------------------|
|              |                      | 'C'                 | Min 'D' | 'C'              | Min 'D' | Min 'A'      | Max 'A' | Min 'B' | Max 'B' |                | Min 'F'    | Max 'F' | Max 'Flats'      | Max 'Crns' |                         |
| 051800-16-VS | 00-16ss              | M16x1.5             | 10      | -                | -       | 3.0          | 8.5     | 8.0     | 13.5    | 52.0           | 0.90       | 0.90    | ♦ 24.0           | ♦ 27.0     | 35.0                    |
| 051800- VS   | 00-20ss              | M20x1.5             | 10      | ½                | 15      | 3.0          | 8.5     | 8.0     | 13.5    | 52.0           | 0.90       | 0.90    | ♦ 24.0           | ♦ 27.0     | 35.0                    |
| 05180- VS    | 0-20s                | M20x1.5             | 10      | ½                | 15      | 7.0          | 12.0    | 11.5    | 16.0    | 52.0           | 0.90       | 1.25    | ♦ 24.0           | ♦ 27.0     | 35.0                    |
| 051801- VS   | 1-20                 | M20x1.5             | 10      | ½/¾              | 15      | 11.0         | 15.0    | 14.5    | 20.5    | 56.0           | 0.90       | 1.25    | 27.0             | 30.0       | 35.0                    |
| 051822- VS   | 2s-25s               | M25x1.5             | 10      | ¾/1              | 15/19   | 11.0         | 17.5    | 16.0    | 24.5    | 65.0           | 1.25       | 1.60    | 35.0             | 39.0       | 50.0                    |
| 051802- VS   | 2-25                 | M25x1.5             | 10      | ¾/1              | 15/19   | 14.0         | 20.0    | 20.5    | 26.5    | 65.0           | 1.25       | 1.60    | 35.0             | 39.0       | 50.0                    |
| 051833- VS   | 3s-32s               | M32x1.5             | 10      | 1 1/4            | 19      | 15.0         | 22.0    | 23.0    | 30.5    | 65.0           | 1.60       | 2.00    | 42.0             | 47.0       | 70.0                    |
| 051803- VS   | 3-32                 | M32x1.5             | 10      | 1 1/4            | 19      | 19.0         | 26.5    | 26.5    | 33.5    | 65.0           | 1.60       | 2.00    | 42.0             | 47.0       | 70.0                    |
| 051844- VS   | 4s-40s               | M40x1.5             | 15      | 1 ¼/1 ½          | 19/21   | 22.0         | 31.5    | 30.0    | 39.5    | 80.0           | 1.60       | 2.00    | 52.0             | 59.0       | 90.0                    |
| 051804- VS   | 4-40                 | M40x1.5             | 15      | 1 ¼/1 ½          | 19/21   | 26.0         | 34.0    | 33.0    | 42.5    | 80.0           | 1.60       | 2.00    | 52.0             | 59.0       | 90.0                    |
| 051855- VS   | 5s-50s               | M50x1.5             | 15      | 1 ½/2            | 21      | 29.0         | 38.0    | 34.0    | 47.5    | 95.0           | 2.00       | 2.50    | 65.0             | 73.0       | 100.0                   |
| 051805- VS   | 5-50                 | M50x1.5             | 15      | 1 ½/2            | 21      | 34.0         | 44.5    | 42.5    | 52.5    | 95.0           | 2.00       | 2.50    | 65.0             | 73.0       | 100.0                   |
| 051866- VS   | 6s-63s               | M63x1.5             | 15      | 2 2/2            | 30      | 38.0         | 50.0    | 45.5    | 60.5    | 116.0          | 2.00       | 2.50    | 80.0             | 90.0       | 120.0                   |
| 051806- VS   | 6-63                 | M63x1.5             | 15      | 2 2/2            | 30      | 44.0         | 56.5    | 52.5    | 65.5    | 116.0          | 2.00       | 2.50    | 80.0             | 90.0       | 120.0                   |
| 051877- VS   | 7s-75s               | M75x1.5             | 15      | 2 ½/3            | 32      | 50.0         | 62.0    | 57.0    | 72.5    | 127.0          | 2.50       | 3.15    | 96.0             | 102.0      | 120.0                   |
| 051807- VS   | 7-75                 | M75x1.5             | 15      | 2 ½/3            | 32      | 56.0         | 67.5    | 65.5    | 78.0    | 127.0          | 2.50       | 3.15    | 96.0             | 102.0      | 120.0                   |
| 051808- VS   | 8-80                 | M80x2.0             | 20      | 3                | 32      | 68.0         | 74.0    | 78.0    | 82.0    | 120.0          | 2.50       | 3.15    | 96.0             | 102.0      | 120.0                   |
| 051899- VS   | 9s-90s               | M90x2.0             | 20      | 3 3/2            | 32/33   | 66.0         | 75.0    | 73.0    | 86.5    | 142.0          | 3.00       | 3.50    | 111.0            | 125.0      | 120.0                   |
| 051809- VS   | 9-90                 | M90x2.0             | 20      | 3 3/2            | 32/33   | 74.0         | 81.5    | 82.0    | 91.0    | 142.0          | 3.00       | 3.50    | 111.0            | 125.0      | 120.0                   |
| 051810- VS   | 10-100               | M100x2.0            | 20      | 3 ¾/4            | 33/34   | 81.0         | 91.0    | 90.0    | 100.0   | 142.0          | 3.00       | 3.50    | 125.0            | 141.0      | 120.0                   |
| 051811- VS   | 11-110               | M110x2.0            | 20      | 4                | 34      | 86.0         | 98.0    | 100.0   | 114.0   | 142.0          | 3.00       | 4.00    | 135.0            | 152.0      | 120.0                   |
| 051812- VS   | 12-120               | M120x2.0            | 20      | -                | -       | 96.0         | 103.0   | 103.0   | 118.0   | 142.0          | 3.00       | 4.00    | 140.0            | 158.0      | 120.0                   |
| 051813- VS   | 13-130               | M130x2.0            | 20      | -                | -       | 100.0        | 115.0   | 113.0   | 124.0   | 165.0          | 3.00       | 4.00    | 146.0            | 164.0      | 120.0                   |

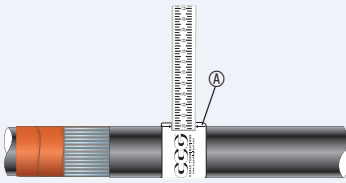
All dimensions except NPT are in mm.

• When manufactured in Aluminium, Hex will be 27 Across Flats and 30 Across Corners.

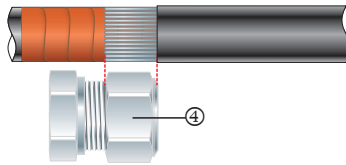
CCG reserves the right to make alterations to the technical data, dimensions, designs and products available without notice. The illustrations cannot be considered binding. Please contact CCG for assistance.

E1WVS-IN230725E

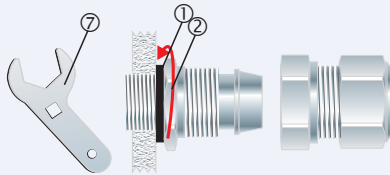
### E1W VS CAPTIVE COMPONENT GLAND<sup>®</sup>



1. For accurate sizing, use a CCG Dimension Tape <sup>Ⓐ</sup> on the inner and outer cable sheath.



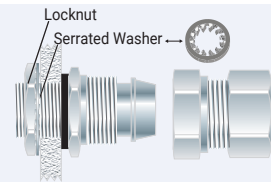
2. Cut the PVC sheath to expose the copper tape or lead sheath to the length of the inner <sup>④</sup>.



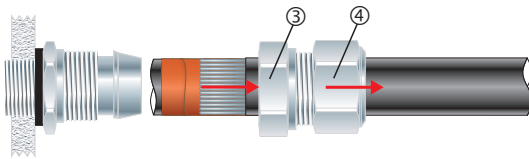
3. To maintain IP66/68, ensure the gasket <sup>①</sup> is in place. Screw the inner <sup>②</sup> into the apparatus. Tighten the inner <sup>②</sup>, to the installation torque using a CCG Spanner <sup>⑦</sup>.

Alternative installation through an unthreaded entry.

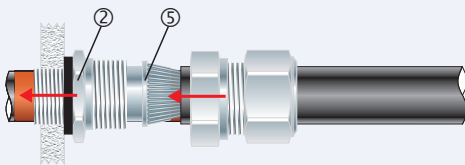
If the apparatus is untapped use a locknut.



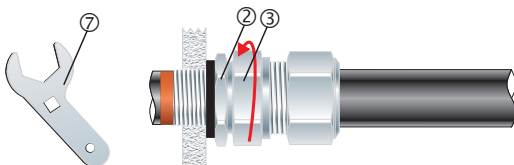
If the gland has NPT entry threads fitted to a threaded entry then IP68 (2m) can be achieved by applying one of the following tested and approved grease types to the thread:- Renolit Lubrene CA700 or LX220 EP2, Renolit LC-WP2 or Moly LX2, or Dow Corning 4 Electrical Compound.



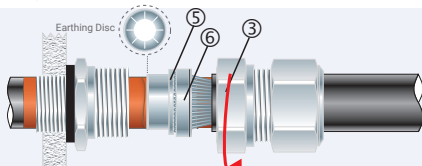
4. Pass the outer nut <sup>④</sup> and the body <sup>③</sup> over the cable.



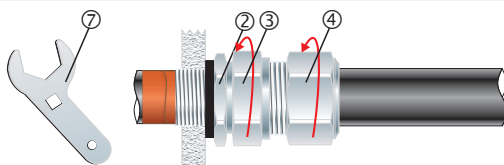
5. Pass cable end through the inner <sup>②</sup> ensure the copper tape does not unravel. Splay the armour wires over the cone <sup>⑤</sup>.



6. Tighten the body <sup>③</sup> onto the inner <sup>②</sup> until hand tight, then tighten with a CCG Spanner <sup>⑦</sup> with  $\frac{3}{4}$  turn to lock the armour between the cone <sup>⑤</sup> and the cone ring <sup>⑥</sup>.



7. Unscrew the body <sup>③</sup>. Check that the armour has locked between the cone <sup>⑤</sup> and the cone ring <sup>⑥</sup>. (O-Ring on the cone ring <sup>⑥</sup> is sacrificial). Check the copper tape or lead sheath has passed through and makes 360° contact with the earthing disc.



8. Tighten the body <sup>③</sup> onto the inner <sup>②</sup> to the installation torque using a CCG Spanner <sup>⑦</sup>. Tighten the outer nut <sup>④</sup> to produce a moisture proof seal by turning until the seal makes contact with the outer sheath of cable and then turn one full turn.